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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,754

02/17/2004

Naoki Oguchi

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EXAMINER

MAIS, MARK A

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

01/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,754	OGUCHI ET AL.	
	Examiner	Art Unit	
	Mark A. Mais	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/17/04; 6/6/06; 11/7/07</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

The information disclosure statements (IDSs) were filed on February 17, 2004; June 6, 2006; and November 7, 2007. The submission is in compliance with the provisions of 37 C.F.R. 1.97. According, the examiner considered the IDSs.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter (e.g., "a computer program"). In the claimed invention, there is no practical application resulting in a transformation to a different state (i.e., there is no computer processor/element performing the encoded instructions to transform the functional computer instructions into useful, concrete, and/or tangible results). For

examination purposes, the examiner will interpret the claim as a computer processor/element executing a computer program code stored on a computer readable medium. Correction is required.

3. Claims 14-18 are rejected as dependent upon a rejected claims *and contain the same problems,*

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 13-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the specification, while supporting a hardware system, is interpreted as only briefly mentioning that the hardware system functions can/may be performed by various combinations of hardware/software. Thus, a claim to a computer program and/or product is inadequately supported in the specification and does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to the invention commensurate in scope with these claims (e.g., interpreted as creating a computer product for performing the claimed method).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-18 are rejected under 35 U.S.C. 102 (e) as being anticipated by Jamieson et al. (USP 6,813,644).

8. With regard to claim 1, Jamieson et al. discloses a virtual path configuration apparatus used in a virtual private network to interconnect a plurality of user networks via virtual paths and that is arranged in each node **[Abstract]**, comprising:

a configuration information setting unit that sets configuration information that is information about configuration of the virtual private network **[Fig. 1, Each PE contains**

a link database, and BGP VPN databases, col. 7, lines 30-57; each PE only maintains relevant entries (per VPN)];

a configuration information sharing unit that shares the configuration information with other virtual path configuration apparatuses in the virtual private network by transmitting the configuration information set by the configuration information setting unit to the other virtual path configuration apparatuses or receiving configuration information from the other virtual path configuration apparatuses **[Fig. 1, each PE is solicit-capable such that, upon receipt of a VPN connection request (without the VPN Reachability Information (VRI)), the PE will transmit a VRI request to all peer nodes, col. 7, line 66 to col. 8, line 15)];** and

a virtual path configuration unit that configures the virtual path based on the shared configuration information **[once the peer node determines that it has received the VRI for that particular VPN, it transmits it to the requesting PE, col. 8, lines 16-23].**

9. With regard to claim 2, Jamieson et al. discloses that the configuration information setting unit sets additional configuration information that is information that is to be added to the configuration information set previously,

the configuration information sharing unit transmits the additional configuration information to the other virtual path configuration apparatuses **[peer nodes]** and receives additional configuration information from the other virtual path configuration apparatuses **[once the peer node determines that it has received the VRI for that particular VPN, it transmits it to the requesting PE, col. 8, lines 16-23],** and

the virtual path configuration unit reconfigures the Virtual path based on configuration information obtained by adding the additional configuration information to the configuration information set previously **[the PE stores the VRIs received from its peer nodes, col. 8, lines 40-48]**.

10. With regard to claim 3, Jamieson et al. discloses that the configuration information setting unit sets deletion configuration information that is information that is to be deleted from the configuration information set previously ,

the configuration information sharing unit transmits the deletion configuration information to the other virtual path configuration apparatuses **[peer nodes]** and receives deletion configuration information from the other virtual path configuration apparatuses **[Fig. 1, each PE is solicit-capable such that, upon receipt of a VPN disconnect request, (without VRI), the PE will transmit a VPN withdraw message to peer node, col. 8, lines 49-64]**, and

the virtual path configuration unit reconfigures the virtual path based on configuration information obtained by deleting the deletion configuration information from the configuration information set previously **[the PE deletes the send list and VRI (both adj-RIB-In/Out), col. 8, lines 54-64]**.

11. With regard to claim 4, Jamieson et al. discloses that the configuration information sharing unit monitors states of the other virtual path configuration apparatus **[each PE monitors VPN information—the send list is used to distribute the changes to the appropriate peers (those which are relevant), col. 7, lines 49-65]**.

12. With regard to claim 5, Jamieson et al. discloses that the configuration information includes information about nodes to which the user networks attach [**BGP VPN data, col. 7, lines 44-47; as well as VPN Link data (col. 7, line 43); thus, each PE supports links across multiple links (link paths), col. 7, lines 30-42]**, and the virtual path configuration unit configures virtual paths between the nodes in a full mesh manner [**all relevant entries (per VPN) are stored, col. 7, lines 58-65]**].

13. With regard to claim 6, Jamieson et al. discloses that the configuration information includes information about ports [**inherent**] to which the user networks attach [**BGP VPN data, col. 7, lines 44-47; as well as VPN Link data (col. 7, line 43); thus, each PE supports links across multiple links (link paths), col. 7, lines 30-42]**, and the virtual path configuration unit configures virtual paths between the ports in a full mesh manner [**all relevant entries (per VPN) are stored, col. 7, lines 58-65]**].

14. With regard to claims 7 and 13, Jamieson et al. discloses a virtual path configuration method and computer program [**inherent**] executed on a virtual path configuration apparatus used in a virtual private network for interconnecting a plurality of user networks via virtual paths and that is arranged in each node [**Abstract**], comprising:

setting configuration information that is information about configuration of the virtual private network [**Fig. 1, Each PE contains a link database, and BGP VPN databases, col. 7, lines 30-57; each PE only maintains relevant entries (per VPN)]**];

sharing the configuration information with other virtual path configuration apparatuses in the virtual private network by transmitting the configuration information set by the configuration information setting unit to the other virtual path configuration apparatuses or receiving configuration information from the other virtual path configuration apparatuses **[Fig. 1, each PE is solicit-capable such that, upon receipt of a VPN connection request (without the VPN Reachability Information (VRI)), the PE will transmit a VRI request to all peer nodes, col. 7, line 66 to col. 8, line 15)];** and configuring the virtual path based on the shared configuration information **[once the peer node determines that it has received the VRI for that particular VPN, it transmits it to the requesting PE, col. 8, lines 16-23].**

15. With regard to claim 8 and 14, Jamieson et al. discloses that the setting includes setting additional configuration information that is information that is to be added to the configuration information set previously,

the sharing includes transmitting the additional configuration information to the other virtual path configuration apparatuses **[peer nodes]**, or receiving additional configuration information from the other virtual path configuration apparatuses **[once the peer node determines that it has received the VRI for that particular VPN, it transmits it to the requesting PE, col. 8, lines 16-23],** and

the configuring includes reconfiguring the virtual path based on configuration information obtained by adding the additional configuration information to the configuration information set previously **[the PE stores the VRIs received from its peer nodes, col. 8, lines 40-48].**

16. With regard to claim 9 and 15, Jamieson et al. discloses that the setting includes setting deletion configuration information that is information that is to be deleted from the configuration information set previously,

the sharing includes transmitting the deletion configuration information to the other virtual path configuration apparatuses [**peer nodes**], or receiving deletion configuration information from the other virtual path configuration apparatuses [**Fig. 1, each PE is solicit-capable such that, upon receipt of a VPN disconnect request, (without VRI), the PE will transmit a VPN withdraw message to peer node, col. 8, lines 49-64**], and

the configuring includes reconfiguring the virtual path based on configuration information obtained by deleting the deletion configuration information from the configuration information set previously [**the PE deletes the send list and VRI (both adj-RIB-In/Out), col. 8, lines 54-64**].

17. With regard to claim 10 and 16, Jamieson et al. discloses that the sharing includes monitoring states of the other virtual path configuration apparatus [**each PE monitors VPN information—the send list is used to distribute the changes to the appropriate peers (those which are relevant), col. 7, lines 49-65**].

18. With regard to claim 11 and 17, Jamieson et al. discloses that the configuration information includes information about nodes to which the user networks attach **[BGP VPN data, col. 7, lines 44-47; as well as VPN Link data (col. 7, line 43); thus, each PE supports links across multiple links (link paths), col. 7, lines 30-42]**, and the virtual path configuration unit configures virtual paths between the nodes in a full mesh manner **[all relevant entries (per VPN) are stored, col. 7, lines 58-65]**.

19. With regard to claim 12 and 18, Jamieson et al. discloses that the configuration information includes information about ports **[inherent]** to which the user networks attach **[BGP VPN data, col. 7, lines 44-47; as well as VPN Link data (col. 7, line 43); thus, each PE supports links across multiple links (link paths), col. 7, lines 30-42]**, and the virtual path configuration unit configures virtual paths between the ports in a full mesh manner **[all relevant entries (per VPN) are stored, col. 7, lines 58-65]**.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Ould-Brahim (USP 7,274,704), Piggybacking VPN information in BGP for network based VPN architectures.

(b) Uttaro (USP 7,257,119), MPLS virtual private network using dual network cores.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138.

The examiner can normally be reached on M-Th 5am-4pm.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


December 11, 2007


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SUPERVISORY PATENT EXAMINER
1/7/08